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## Patent Claims

1. A synchronization method for a reception unit (2),  
- where cyclically emitted synchronization signals (S)  
5 are transmitted to the reception unit (2) by a transmission unit (1),  
- where the reception unit (2) supplies the synchronization signals (S) to a first clock transmitter (7),  
10 - where the clock transmitter (7) outputs an essentially stable number of clock signals (b or Z) between two synchronization signals (S),  
wherein these stable clock signals (b or Z) are used to drive a second clock transmitter (7'),  
15 - where the second clock transmitter (7') generates a second clock signal (a) which is continuously present, even when the first stable clock signals (b and Z) are absent,  
- where a phase difference (c) arising between the  
20 first clock transmitter (7) and the second clock transmitter (7') is compensated for by influencing the period duration of the second clock transmitter (7').
- 25 2. The synchronization method for a reception unit as claimed in claim 1, wherein  
only slight changes in the period duration of the second clock transmitter (7') are made such that the phase  
difference (c) is continuously reduced within a prescribed  
30 time period until the first clock signal (b or Z) and the second clock signal (a) are synchronous with one another.
3. The synchronization method for a reception unit as  
claimed in claim 1 or 2, wherein the period duration of  
35 the second clock transmitter (7') is influenced such that

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the shorter interval between the phases of the two clock signals (a, b) is reduced.

4. The synchronization method for a reception unit as claimed in one of claims 1 to 3, wherein the second clock transmitter (7') is driven with a prescribed standard period duration in the event of the first stable clock signal (b or Z) being absent.

5. The synchronization method for a reception unit as claimed in one of claims 1 to 4,

- where the reception unit (2) supplies the synchronization signals (S) to the first clock transmitter (7) via a phase regulator (5) in a phase locked loop (6),

- where the phase regulator (5), upon receiving the synchronization signals (S), ascertains instantaneous phase errors (Z) and readjusts the first clock transmitter (7) such that the first clock transmitter (7) outputs a nominal number (Z\*) of clock signals between two synchronization signals (S),

wherein fluctuations in the period duration of the first clock transmitter (7) which are corrected by the phase regulator (5) are mapped onto the second clock transmitter (7').

6. The synchronization method for a reception unit as claimed in claim 5, wherein the corrections (d) in the period duration of the first clock transmitter (7) which are ascertained by the phase regulator (5) from clock pulse to clock pulse are taken into account both in the first stable clock signal (b or Z) and in the continuously present second clock signal (a).

7. A reception unit for carrying out a

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synchronization method as claimed in one of the preceding claims.

FOOTNOTES